



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO		
10/724,309	11/26/2003	Francis H. Liu	K35R1883	2994		
35219 7	590 03/07/2006		EXAMI	EXAMINER		
	DIGITAL TECHNOLOG	HEINZ, A	HEINZ, ALLEN J			
ATTN: SAND 20511 LAKE F		ART UNIT	PAPER NUMBER			
E-118G		2653				
LAKE FOREST, CA 92630			DATE MAILED: 03/07/2006			

Please find below and/or attached an Office communication concerning this application or proceeding.

		Applica	ation No.	Applicant(s)				
Office Action Summary		10/724	,309	LIU ET AL.				
		Examir	ner	Art Unit	T -			
		A. J. HE	EINZ	2653				
Period fo	The MAILING DATE of this communic or Reply	ation appears on	the cover sheet v	vith the correspondence a	nddress			
WHIC Exte after If NC Failu Any	ORTENED STATUTORY PERIOD FO CHEVER IS LONGER, FROM THE MA nsions of time may be available under the provisions of SIX (6) MONTHS from the mailing date of this commu period for reply is specified above, the maximum stature to reply within the set or extended period for reply we reply received by the Office later than three months afted patent term adjustment. See 37 CFR 1.704(b).	ALING DATE OF far the	THIS COMMUN event, however, may a d will expire SIX (6) MO application to become A	ICATION. Teply be timely filed NTHS from the mailing date of this ABANDONED (35 U.S.C. § 133).				
Status								
1)	Responsive to communication(s) filed	Lon						
2a)□		o)⊠ This action is	s non-final					
3)								
-,	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposit	ion of Claims	·						
4)⊠	Claim(s) <u>1-34</u> is/are pending in the application.							
,	4a) Of the above claim(s) is/are withdrawn from consideration.							
5)🖂	Claim(s) <u>31-34</u> is/are allowed.							
·	Claim(s) <u>1-3,7-15,17,19-25 and 28-30</u> is/are rejected.							
	Claim(s) <u>4-6,16,18,26 and 27</u> is/are objected to.							
8)	Claim(s) are subject to restricti	on and/or election	n requirement.	•				
Applicat	ion Papers							
9)□	The specification is objected to by the	Examiner						
-			accepted or b)	☐ objected to by the Exa	miner.			
10)☑ The drawing(s) filed on <u>26 November 2003</u> is/are: a)☑ accepted or b)☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).								
	Replacement drawing sheet(s) including t		-		OFR 1.121(d).			
11)	The oath or declaration is objected to	•	`	•	` '			
Priority (ınder 35 U.S.C. § 119							
	Acknowledgment is made of a claim fo ☐ All b) ☐ Some * c) ☐ None of:	or foreign priority (under 35 U.S.C.	§ 119(a)-(d) or (f).				
·	1. Certified copies of the priority d	ocuments have b	een received.					
	2. Certified copies of the priority documents have been received in Application No							
	3. Copies of the certified copies of	f the priority docur	ments have beei	n received in this Nationa	al Stage			
	application from the Internation	al Bureau (PCT R	tule 17.2(a)).					
* \$	See the attached detailed Office action	for a list of the ce	rtified copies no	t received.				
Attachmen	t(s)							
1) Notic	e of References Cited (PTO-892)			Summary (PTO-413)				
	e of Draftsperson's Patent Drawing Review (PT nation Disclosure Statement(s) (PTO-1449 or P			(s)/Mail Date Informal Patent Application (P1	ro-152)			
Paper No(s)/Mail Date 11/26/03. 6) Other: Addendum A								

Application/Control Number: 10/724,309
Art Unit: 2653

 Applicant should review the specification for references to other patent applications, such as on page 1, and, if necessary,

provide missing data such as serial number(s) and amendment(s)

to update the status of those applications.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 3. Claims 1,2,8-10,13,14,20-23,29 and 30 are rejected under 35 U.S.C. §102(e) as being anticipated by Shukh (PN 6791796).

See Fig. 2. Note, to the extent claimed and understood, the structure as shown in Addendum A reads on and performs to the same degree as claimed. See col.7, lines 46-55.

Page 3

Art Unit: 2653

Re Claims 2,8,14,20,29; the flux emanating from adjoining angled surfaces of a flux carrying magnetic body invariably extends at a multitude of angles which would inherently include the indicated claimed flux angles.

- 4. The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 7,17,19,25 and 28 are rejected under 35 U.S.C. \$103(a) as being unpatentable over Shukh (PN 6791796) as applied to claim 1 above, and further in view that official notice is taken in concern to the dimensions and spacing of the various components.

Application/Control Number: 10/724,309
Art Unit: 2653

As indicated in paragraph 3 above, Shukh (PN 6791796) discloses all of the claimed features except for the dimensions and spacing of the various components.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to fabricate the components with the claimed spacing and dimensions of the claimed components.

Rationale: the claimed dimensions and spacing are simply alternative choices in the fabrication processes for achieving the same results for the same purposes as that shown in the prior art and would have been determined by the skilled artisan during routine experimentation and which would make same(dimensions and spacing), readily substitutable equivalents.

6. Claims 3,11,12,15 and 24 are rejected under 35 U.S.C. \$103(a) as being unpatentable over Shukh (PN 6791796) as applied to claim 1 above, and further in view of Shukh (PN 6954340).

As indicated in paragraph 3 above, Shukh (PN 6791796) discloses all of the claimed features except for the magnetoresistive sensor.

Shukh (PN 6954340) discloses the combination of the write head and magnetoresistive sensor.

Application/Control Number: 10/724,309
Art Unit: 2653

It would have been obvious to one of ordinary skill in the art at the time the invention was made to fabricate the transducer of Shukh (PN 6791796) with a magnetoresistive sensor as in Shukh (PN 6954340).

Rationale: magnetic transducers invariably are utilized in applications which require them to perform both write and read operations, therefore it would be incongruous to not have both components in a single transducer to simplify fabrication and application.

- 7. Claims 31-34 are allowed.
- 8. Claims 4-6,16,18,26 and 27 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 9. For a complete response applicant should identify how the claimed structure of his invention defines over **all** the art of record.

Moreover, where the applicant disagrees with the reasoning and/or application of the prior art on critical points of the claims, they should identify how the claimed structure of their

invention defines over **all** the art of record not just the applied art.

Where applicant believes that the art is redundant and/or superfluous relative to the critical aspects of the claimed invention the applicant may simply state so in rebuttal summary.

- 10. If applicant has filed an information disclosure statement and this instant office action does not contain an initialed-off copy (or copies) of all such filed IDS's (or at least a comment to the disposition of such IDS'S in the body of the office action itself) applicant should apprise the examiner of such missing documentation [to the IDS's] in response to this office action so that the examiner can take appropriate action to supply same to the applicant.
- 11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. J. HEINZ whose telephone number is (571) 272-7587. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DWAYNE BOST can be reached on (571)272-7023

The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Art Unit: 2653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. J. HEINZ Primary Examiner Art Unit 2653

A. J. Lang

